

Remarks

The Office Action mailed August 8, 2006 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-53 are now pending in this application. Claims 1-47 stand rejected. Claims 48-53 are newly added. A fee calculation sheet for the newly added claims along with authorization to charge a deposit account in the amount of the calculated fee are submitted herewith.

In accordance with 37 C.F.R. 1.136(a), a one-month extension of time is submitted herewith to extend the due date of the response to the Office Action dated August 8, 2006, for the above-identified patent application from November 8, 2006 through and including December 8, 2006. In accordance with 37 C.F.R. 1.17(a)(1), authorization to charge a deposit account in the amount of \$60.00 to cover this extension of time request also is submitted herewith.

The objection to the drawings is respectfully traversed, Applicants have amended the drawings. Accordingly, Applicants respectfully request that the objection to the drawings be withdrawn.

The rejection of Claims 1-47 under 35 U.S.C. § 112 is respectfully traversed.

Applicants respectfully traverse the assertion that the meaning of “polymer modified emulsion asphalt oil” is not understandable. It is well settled that an Applicant may be its own lexicographer. A term integrally formed and used throughout the subject application and claims is defined and used to constitute a one-piece construction. Attention is directed to paragraph [0026] on page 7 of the specification, which clearly recites that “[i]n one embodiment, the asphalt referred to herein as a polymer-modified emulsion asphalt oil is a natural latex modified grade CSS-1h (cationic) emulsified asphalt.” As such, Applicants submit that the meaning of “polymer modified emulsion asphalt oil” would be understandable to one skilled in the art. Moreover, Applicants submit that given the example embodiment of polymer modified emulsion asphalt oil, as described in the specification, other embodiments

of a polymer modified emulsion asphalt oil would be obvious to one skilled in the arts of microsurfacing and paving.

Further, Applicants respectfully traverse the assertion that the meaning and significance of “Burlington-Keokuk limestone formation”, “Elsey-Reeds Spring formation”, and “Pierson formation” are not known. Paragraph [0012] of the specification clearly defines that Burlington-Keokuk limestone formation, Elsey-Reeds Spring formation, and Pierson formation are known formations of crushed aggregate. As such, Applicant submits that one skilled in the art of microsurfacing and paving would understand the meaning and significance of such rock formations. Further Applicants submit that it is well settled that an Applicant is only required to describe his invention in a manner that enables one skilled in the art to make and use the invention.

Moreover, Applicants have amended the claims to addresses the other Section 112 issues raised in the Office Action. Specifically, Applicant has amended Claim 12, 20, and 42 to recite “cubical”. In addition, Applicants have amended Claims 11 and 31 to recite “wherein said crushed aggregate further comprises aggregate that has been crushed utilizing an impact crusher” and “wherein preparing a crushed aggregate further comprises crushing the aggregate utilizing an impact crusher”, respectively.

For the reasons set forth above, Applicants respectfully request that the Section 112 rejections of Claims 1-47 be withdrawn.

The rejection of Claims 1-47 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Ohtsuka et al. (U.S. Patent 5,925,695) (hereinafter referred to as “Ohtsuka”), in view of Yoshida et al. (U.S. Patent 5,352,062) (hereinafter referred to as “Yoshida”) or Ward Jr. (U.S. Patent 4,373,960) (hereinafter referred to as “Ward”) is respectfully traversed.

Applicants respectfully submit that the Section 102 rejection is improper. Specifically, the Office Action has failed to indicate that any of the individual cited references describe each element of the claimed invention. Rather, pages 3-4 of the Office Action merely assert that “it would have been obvious to one having ordinary skill in the art;

at the time the invention was made, to use the aggregate blend of Yoshida et al. (in order to take advantage of its hardness and skid resistance properties) and the particle size distribution of Ward, Jr., (which is preferred in patching compounds), in the composition of Ohtsuka et al.” To maintain a proper Section 102 rejection, the cited art must describe each element of the claimed invention. As such the Office Action’s reliance on combinations of Yoshida, Ward, and Ohtsuka are misplaced and improper for a Section 102 rejection. Accordingly, Applicants respectfully request that the Section 102 rejection be withdrawn.

Yoshida describes a road surface that is designed to **enhance skidding**. Specifically, Yoshida describes a road surface that includes **two separate crushed aggregates**. The first crushed aggregate includes a coarse, spherical aggregate; and the second aggregate is a fine aggregate typically including sand. The fine aggregate is configured to grasp the coarse aggregate, such that the coarse aggregate is compactable into a surface having random spherical protuberances. The spherical protuberances are designed to wear down over time creating a smooth surface **having a low skid resistance**. Further, the road surface is designed, such that normal wear causing **uneven surfaces can be prevented over time**. Specifically, the road surface is designed to remain smooth over long periods of time, thereby decreasing skid resistance. More specifically, as is recited at column 1, lines 43-49, “[i]t is the object of the present invention to eliminate the aforementioned conventional drawbacks of an asphalt concrete type skid road surface using an asphalt mixture and provide a pavement surface having a stable, **low skid resistance value and not causing a secular change**”.

Notably, Yoshida does not describe or suggest **a composition having a single crushed aggregate that includes two portions, each having a different hardness**. The Office Action confuses the coarse aggregate and fine aggregate of Yoshida for the crushed aggregate described in the present invention. It should be noted that the present invention is not directed to aggregates having different sizes but rather focuses on a single aggregate that includes portions of varying hardness. The varying hardness of the aggregate facilitates providing a surface wherein softer portions of the aggregate are enabled to break off providing sharp edges that **increase the skid resistance** of the surface. In contrast, Yoshida describes **two aggregates** having different sizes such that a smooth surface can be

maintained, thereby **decreasing a skid resistance of the surface**. As such, Yoshida does not describe nor suggest the presently claimed composition. In addition, Yoshida teaches away from the present invention in that Yoshida is directed towards decreasing skid resistance. As such, Applicants submit that it is improper to combine Yoshida with either Ohtsuka or Ward to render the present invention obvious.

Ohtsuka describes a curable composition that includes an epoxy-modified diene-based block copolymer. Specifically, the copolymer includes a first polymer block having an aromatic vinyl compound and a second polymer block having a compound that includes a conjugated double bond, in which unsaturated double bonds are partially epoxidized. The curable composition also includes asphalt mixed with tar and a curable agent. In one embodiment of Ohtsuka, the composition includes a cement mixture that is added to the composition to provide strength. Notably, Ohtsuka does not describe or suggest a composition that includes any formation of crushed aggregate. Specifically, Ohtsuka does not describe nor suggest a composition including a crushed aggregate that includes two portions that each have a different hardness.

Ward describes a non-emulsified asphalt binder composition for repairing roadways. Specifically, the composition includes a medium curing liquid asphalt, an oil base, and an organopolysiloxane fluid. The Office Action focuses on the particle size distribution of Ward to maintain the 102/103 rejection. As is noted above, the present invention is not directed to compositions having varying particle sizes. Rather, the present invention is directed towards a single crushed aggregate having two portions of varying hardness. As such, the Office Action's reliance on varying particle size, as described in both Ward and Yoshida, is misplaced.

Claim 1 recites a composition for microsurfacing of pavement, wherein the composition comprises "a polymer-modified emulsion asphalt oil . . . water . . . cement . . . crushed aggregate comprising a first portion and a second portion, said first portion having a first L.A. abrasion resistance, said second portion having a second L.A. abrasion resistance lower than the first L.A. abrasion resistance."

None of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe nor suggest a composition for microsurfacing of pavement, as recited in Claim 1. More specifically, none of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe nor suggest a composition comprising a first portion and a second portion, wherein the first portion has a first L.A. abrasion resistance and the second portion has a second L.A. abrasion resistance lower than the first L.A. abrasion resistance. Rather, in contrast to the present invention, Yoshida describes a composition for **decreasing skid resistance** that includes **two separate aggregates**. Notably, the aggregates of Yoshida **differ in particle size and are not described to have a varying hardness**. Moreover, Ohtsuka and Ward describe paving compositions that do not include a crushed aggregate having two portions, each with a different hardness.

Accordingly, for at least the reasons set forth above, Claim 1 is submitted to be patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Claims 2-17 and 48 depend from independent Claim 1. When the recitations of Claims 2-17 and 48 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-17 and 48 likewise are patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Moreover, none of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe or suggest a composition including a crushed aggregate having a first portion and a second portion, wherein the second portion is configured to develop sharp edges over time to maintain a skid resistance of the pavement, as is recited in newly added Claim 48. Accordingly, and in addition to the reasons stated above, newly added Claim 48 is submitted to be patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Claim 18 recites a method for microsurfacing a surface comprising “preparing a crushed aggregate which includes a first portion and a second portion, the first portion having an L.A. abrasion resistance higher than the L.A. abrasion resistance of the second portion of the crushed aggregate, the crushed aggregate having a sand equivalent value of at least 80 percent . . . mixing the crushed aggregate with a polymer-modified emulsion asphalt oil, water, and cement . . . applying the mixture to the surface to be microsurfaced.”

None of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe nor suggest a method for microsurfacing a surface, as recited in Claim 18. More specifically, none of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe nor suggest a method that includes preparing a crushed aggregate that includes a first portion and a second portion, wherein the first portion has an L.A. abrasion resistance higher than the L.A. abrasion resistance of the second portion. Rather, in contrast to the present invention, Yoshida describes a composition for **decreasing skid resistance** that includes **two separate aggregates**. Notably, the aggregates of Yoshida **differ in particle size and are not described to have a varying hardness**. Moreover, Ohtsuka and Ward describe paving compositions that do not include a crushed aggregate having two portions, each with a different hardness.

Accordingly, for at least the reasons set forth above, Claim 18 is submitted to be patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Claims 19-31 and 49 depend from independent Claim 18. When the recitations of Claims 19-31 and 49 are considered in combination with the recitations of Claim 18, Applicants submit that dependent Claims 19-31 and 49 likewise are patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Moreover, none of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe or suggest a method including preparing a crushed aggregate second portion that facilitates developing sharp edges over time to facilitate maintaining a skid resistance of a surface, as is recited in newly added Claim 49. Accordingly, and in addition to the reasons stated above, newly added Claim 49 is submitted to be patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Claim 32 recites a crushed aggregate for utilization in microsurfacing of pavement, wherein the crushed aggregate comprises “a first portion having a first L.A. abrasion resistance . . . a second portion having a second L.A. abrasion resistance, the first L.A. abrasion resistance being higher than the second L.A. abrasion resistance.”

None of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe nor suggest a crushed aggregate for utilization in microsurfacing of pavement, as recited in Claim 32. More specifically, none of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe nor suggest a crushed aggregate that includes a first portion having a first L.A. abrasion resistance, and a second portion having a second L.A. abrasion resistance, wherein the first L.A. abrasion resistance is higher than the second L.A. abrasion resistance. Rather, in contrast to the present invention, Yoshida describes a composition for **decreasing skid resistance** that includes **two separate aggregates**. Notably, the aggregates of Yoshida **differ in particle size and are not described to have a varying hardness**. Moreover, Ohtsuka and Ward describe paving compositions that do not include a crushed aggregate having two portions, each with a different hardness.

Accordingly, for at least the reasons set forth above, Claim 32 is submitted to be patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Claims 33-43 and 50 depend from independent Claim 32. When the recitations of Claims 33-43 and 50 are considered in combination with the recitations of Claim 32, Applicants submit that dependent Claims 33-43 and 50 likewise are patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Moreover, none of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe or suggest a crushed aggregate that includes a first portion and a second portion, wherein the second portion is configured to develop sharp edges over time to maintain a skid resistance of the pavement, as is recited in newly added Claim 50. Accordingly, and in addition to the reasons stated above, newly added Claim 50 is submitted to be patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Claim 45 recites a composition for microsurfacing of pavement, wherein the composition comprises “a polymer-modified emulsion asphalt oil . . . water . . . cement . . . crushed aggregate from the Burlington-Keokuk limestone formation, wherein the aggregate comprises a first portion and a second portion, said first portion having a first L.A. abrasion resistance, said second portion having a second L.A. abrasion resistance lower than the first L.A. abrasion resistance.”

None of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe nor suggest a composition for microsurfacing of pavement, as recited in Claim 45. More specifically, none of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe nor suggest a composition including an aggregate that includes a first portion and a second portion, wherein the first portion has a first L.A. abrasion resistance and the second portion has a second L.A. abrasion resistance lower than the first L.A. abrasion resistance. Rather, in contrast to the present invention, Yoshida describes a composition for **decreasing skid resistance** that includes **two separate aggregates**. Notably, the aggregates of Yoshida **differ in particle size and are not described to have a varying hardness**. Moreover, Ohtsuka and Ward describe paving compositions that do not include a crushed aggregate having two portions, each with a different hardness.

Accordingly, for at least the reasons set forth above, Claim 45 is submitted to be patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Claim 51 depends from independent Claim 45. When the recitations of Claim 51 are considered in combination with the recitations of Claim 45, Applicants submit that dependent Claim 51 likewise is patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Moreover, none of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe or suggest a composition including a crushed aggregate having a first portion and a second portion, wherein the second portion is configured to develop sharp edges over time to maintain a skid resistance of the pavement, as is recited in newly added Claim 51. Accordingly, and in addition to the reasons stated above, newly added Claim 51 is submitted to be patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Claim 46 recites a composition for microsurfacing of pavement, wherein the composition comprises “a polymer-modified emulsion asphalt oil . . . water . . . cement . . . crushed aggregate from the Elsey-Reeds Spring formation, wherein the aggregate comprises a first portion and a second portion, said first portion having a first L.A. abrasion resistance, said second portion having a second L.A. abrasion resistance lower than the first L.A. abrasion resistance.”

None of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe nor suggest a composition for microsurfacing of pavement, as recited in Claim 46. More specifically, none of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe nor suggest a composition that includes an aggregate that includes a first portion and a second portion, wherein the first portion has a first L.A. abrasion resistance and the second portion has a second L.A. abrasion resistance lower than the first L.A. abrasion resistance. Rather, in contrast to the present invention, Yoshida describes a composition for **decreasing skid resistance** that includes **two separate aggregates**. Notably, the aggregates of Yoshida **differ in particle size and are not described to have a varying hardness**. Moreover, Ohtsuka and Ward describe paving compositions that do not include a crushed aggregate having two portions, each with a different hardness.

Accordingly, for at least the reasons set forth above, Claim 46 is submitted to be patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Claim 52 depends from independent Claim 46. When the recitations of Claim 52 are considered in combination with the recitations of Claim 46, Applicants submit that dependent Claim 52 likewise is patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Moreover, none of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe or suggest a composition including a crushed aggregate having a first portion and a second portion, wherein the second portion is configured to develop sharp edges over time to maintain a skid resistance of the pavement, as is recited in newly added Claim 52. Accordingly, and in addition to the reasons stated above, newly added Claim 52 is submitted to be patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Claim 47 recites a composition for microsurfacing of pavement, wherein the composition comprises “a polymer-modified emulsion asphalt oil . . . water . . . cement . . . crushed aggregate from the Pierson formation, wherein the aggregate comprises a first portion and a second portion, said first portion having a first L.A. abrasion resistance, said second portion having a second L.A. abrasion resistance lower than the first L.A. abrasion resistance.”

None of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe nor suggest a composition for microsurfacing of pavement, as recited in Claim 47. More specifically, none of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe nor suggest a composition that includes an aggregate that includes a first portion and a second portion, wherein the first portion has a first L.A. abrasion resistance, and the second portion has a second L.A. abrasion resistance lower than the first L.A. abrasion resistance. Rather, in contrast to the present invention, Yoshida describes a composition for **decreasing skid resistance** that includes **two separate aggregates**. Notably, the aggregates of Yoshida **differ in particle size and are not described to have a varying hardness**. Moreover, Ohtsuka and Ward describe paving compositions that do not include a crushed aggregate having two portions, each with a different hardness.

Accordingly, for at least the reasons set forth above, Claim 47 is submitted to be patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

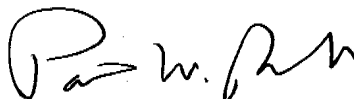
Claim 53 depends from independent Claim 47. When the recitations of Claim 53 are considered in combination with the recitations of Claim 47, Applicants submit that dependent Claim 53 likewise is patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

Moreover, none of Ohtsuka, Yoshida, and Ward, considered alone or in combination, describe or suggest a composition including a crushed aggregate having a first portion and a second portion, wherein the second portion is configured to develop sharp edges over time to maintain a skid resistance of the pavement, as is recited in newly added Claim 53. Accordingly, and in addition to the reasons stated above, newly added Claim 53 is submitted to be patentable over Ohtsuka, Yoshida, and Ward, considered alone or in combination.

For the reasons set forth above, Applicants respectfully request that the Section 102 and Section 103 rejection of Claims 1-47 be withdrawn. Moreover, Applicants respectfully request favorable consideration of newly added Claims 48-53.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Patrick W. Rasche", written over a horizontal line.

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